(12) UK Patent Application (19) GB (11) 2 291 036 (13) A

(43) Date of A Publication 17.01.1996

(21) Application No 9513973.9

(22) Date of Filing 08.07.1995

(30) Priority Data
(31) 9414107 (32) 13.07.1994 (33) GB

(71) Applicant(s)
Morplan

(Incorporated in the United Kingdom)

PO Box 54, Temple Bank, HARLOW, Essex, CM20 2TS, United Kingdom

(72) Inventor(s)
Arne Wilhelmsson

(74) Agent and/or Address for Service
G F Redfern & Co
Redfern House, 149/151 Tarring Road, WORTHING, West Sussex, BN11 4HE, United Kingdom

(51) INT CL^6
G09F 3/06 // A47G 25/14

(52) UK CL (Edition O)
B8F FBC
U1S S1127

(56) Documents Cited
GB 2139181 A

(58) Field of Search
UK CL (Edition N) B8F FBC
INT CL^6 A47G 25/14 , G09F 3/00 3/02 3/04 3/06
ONLINE:WPI

(54) Identification tallies for garment hangers

(57) There is described a garment marker comprising an elongate strip of flexible material divided by transversely extending fold lines 2 into three or more sections 1a, 1b, 1c hingedly linked in end-to-end relationship, a number of the sections having an upstanding side wall 4, 5 extending along one of their respective side edges in a plane substantially perpendicular to the plane of the strip, and each side wall being substantially triangular in form having its base attached to a respective section and having a truncated apex, the marker being assembled by forming the sections of the marker into polygonal cylindrical array (around the stem of a garment hanger) by bringing the transverse edges of the sections at the respective ends of the strip into engagement, the side walls defining at least one transverse surface relative to the axis of the garment marker. A method of producing garment marker tallies is also disclosed wherein the respective sections of the strip are positioned in one plane while size marking indicia 9 are applied on those faces of the sections of the strip remote from the upstanding side walls, and thereafter ends of the strip are brought together by folding the strip along its fold lines. The ends of the strip are held together by interengagement of latching means 7, 8, or by bonding or welding.

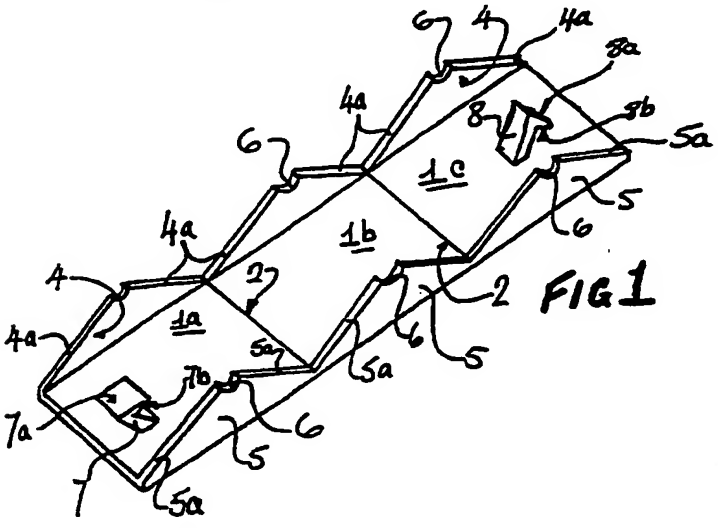
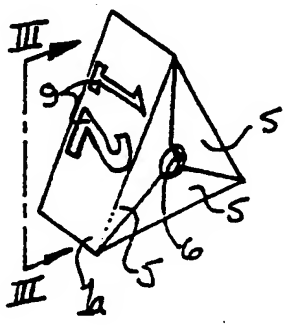


FIG 1

FIG 2



GB 2 291 036 A

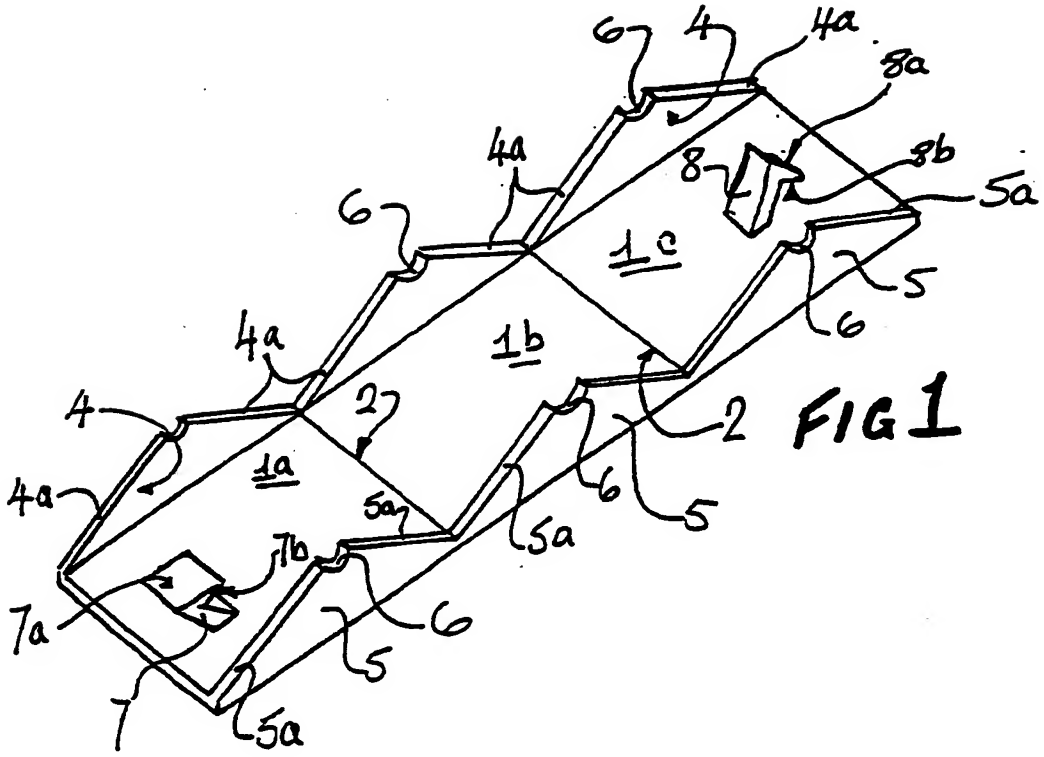


FIG 1

FIG 2

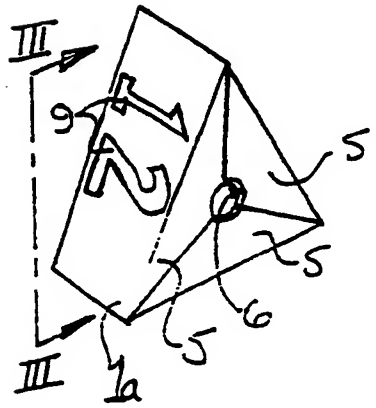
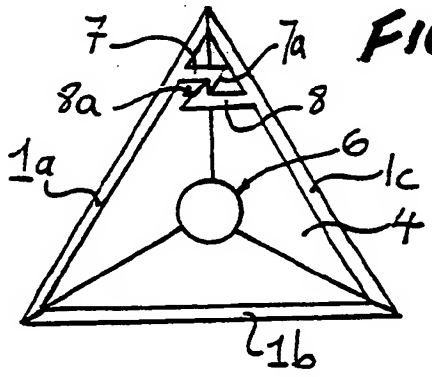


FIG 3



IDENTIFICATION TALLIES

The present invention relates to identification tallies, and is particularly concerned with size-indicating markers for use with garment hangers in order to indicate the size of the garment on display.

UK Patent 2,139,181B describes a garment identification tally composed of two hinged semi-cylindrical portions which can be brought together to form a cylindrical garment marker having an axial opening through which the stem of a garment hanger may pass. Such tallies are formed by injection moulding the tally in an open position, wherein each of the two part of the tally comprises a semi-cylindrical portion having a convex outer face and a diametral plane surface, and in which the two halves of the garment tally are moulded in a side-by-side position with their diametral surfaces coplanar and a hinged joint being arranged on the adjacent generators of the cylindrical portions at one end of their diametral surfaces.

While such a marker is capable of being closed to form a cylindrical garment tally, the difficulty in applying appropriate indicia to the cylindrical surface of the marker has prevented its use. When the marker is in its as-moulded condition, the two semi-cylindrical surfaces which will ultimately form the outer cylindrical surface of the marker are so positioned as to effectively prevent the application of indicia over a large part of the circumference of the marker. The construction of some embodiments of the prior art marker is such that, once closed, it cannot be reopened for application to a garment hanger stem, and thus the marker cannot be closed before printing of indicia on its circumferential surface. Even in markers which are reopenable after closure, the convexity of the exterior surfaces of the marker sections makes difficult the printing of the area adjacent the hinge, and machinery to hold the marker in a partially closed position for printing is prohibitively complicated.

The present invention seeks to provide a garment tally which can be easily and economically produced, and which can be assembled and applied to a garment hanger in order to provide indicia visible from all circumferential directions relating to the garment on display.

In accordance with a first aspect of the invention, a garment marker comprises an elongate strip of flexible material divided by transversely extending fold lines into three or more sections hingedly linked in end-to-end relationship, a number of the sections having an upstanding side wall extending along one of their respective side edges in a plane substantially perpendicular to the plane of the strip, and each side wall being substantially triangular in form having its base attached to a respective section and having a truncated apex, the marker being assembled by forming the sections of the marker into polygonal cylindrical array by bringing the sections at the respective ends of the strip into end-to-end engagement, the side walls defining at least one transverse surface relative to the axis of the garment marker. Preferably the side walls extend in the same plane, to form an end surface of the garment marker.

The marker may be formed from a strip comprising three sections, in which case the polygonal cylinder formed by the sections will be a triangular prism, or more sections may be provided in end-to-end hinged relationship to form markers of prismatic shape having four or more sides. The marker is preferably held in its prismatic shape by means of cooperating latching elements formed on the end sections of the elongate strip. The latching elements are most preferably releasable. Alternatively the marker may be secured by bonding or welding.

Most preferably, each of the sections has a pair of substantially parallel side walls extending from its side edges, and most preferably each of the side walls is truncated at its apex by a concave arcuate edge. The concave arcuate edges are most preferably arranged so that they form a circular opening when the side walls lie with their adjacent edges in contact.

According to a second aspect of the invention, a method of producing garment marker tallies comprises providing a strip of flexible material divided into three or more sections by transverse hinge lines and having a number of upstanding side walls formed on respective sections of the strip, size marking indicia being applied on those faces of the sections of the strip remote from the upstanding side walls, and the ends of the strip thereafter being brought together by folding the strip along its fold lines to form the sections of the strip into a polygonal cylindrical array with the indicia on the outer surfaces, the side walls forming at least one end surface of the garment marker.

The strip of flexible material is preferably substantially planar, and the respective sections of the strip are advantageously positioned in one plane while the size marking indicia are applied on those faces of the sections of the strip remote from the upstanding side walls.

An embodiment of the present invention will now be described in detail with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a garment marker according to the present invention in its unassembled condition;

Figure 2 is a perspective view of the garment marker of Figure 1 in its assembled condition; and

Figure 3 is a sectional view taken along the line III-III of Figure 2.

Referring now to the drawings, a garment marker comprises a plurality of marker sections 1 of generally elongate rectangular form, joined in end-to-end relationship by a number of hinge lines 2. A first end section 1a is connected to a central section 1b, which is in turn connected to a second end section 1c. In the Figures, a garment marker comprising three sections 1 joined by two hinge lines 2 is shown, but it should be understood that the garment marker may comprise four or more of the sections 1 joined by three of more hinge lines 2.

Along the free edges of the sections 1a, 1b and 1c are provided upstanding side walls 4 and 5, the side walls 4 and 5 being generally triangular in form and having at their apices a concave arcuate cutout 6. In the preferred embodiment, illustrated in Figure 1, the upper edges 4a and 5a of the side walls 4 and 5 extend radially with respect to the cutout 6, and subtend an angle of 120^{0}. It will be understood, however, that if the marker is composed of more than three sections 1a, 1b, 1c, the edges 4a and 5a will be arranged so as to subtend a smaller angle. The angle subtended by the edges 4a and 5a of the respective side walls 4 and 5 is preferably 360^{0} divided by n, where n is the number of sections 1a, 1b, 1c of the marker.

The end sections 1a and 1c of the marker, which are attached to the central section 1b, are provided with latching means 7 and 8 respectively. To assemble the marker from the position shown in Figure 1 to the position shown in Figure 2, the end sections 1a and 1c are pivoted relative to the central section 1b so that the side walls 4 and 5 approach each other and contact each other along their respective edges 4a and 5a. As the free ends of the end sections 1a and 1c approach each other, cooperating latching portions 7 and 8 interengage to retain the marker in its final position as shown in Figure 2. The interengagement of the latching portions 7 and 8 is best seen in Figure 3. As the latching portions 7 and 8 come together, their end surfaces 7a and 8a act as cams to urge the latching portions apart until the undercut surfaces 7b and 8b can be urged into engagement with each other by the resilience of the latching portions 7 and 8.

In use, the marker is moulded with its sections 1a, 1b, 1c in a planar array, and this facilitates the printing of indicia 9 on the faces of the sections 1a, 1b, 1c remote from the side walls 4 and 5. Preferably, each face is printed with the same indicia so that when the marker is assembled to form a prism or cylinder, and is held with its axis vertical, the indicia 9 are visible from all radial directions.

When the marker is assembled with the latching portions 7 and 8 in engagement, the edges 5a and 4a, respectively of the side walls 5 and 4 will contact each other to form triangular end walls for the marker. The arcuate cutouts 6 formed in the side walls 4 and 5 cooperate to provide circular openings coaxially aligned with the axis of the assembled marker. In an alternative embodiment, not illustrated, the side walls 4 and 5 may be truncated in straight lines, so that polygonal openings are provided to accept the hanger stem or stud.

While in the preferred embodiment shown in Figures 1 to 3 side walls 4 and 5 are provided so that the marker, when assembled, forms an enclosed structure, it is to be understood that the side walls 4 may be omitted in order to provide an assembled structure which is generally skirt-like in nature. Alternatively, where an even number of sections 1a, 1b etc has been provided, alternate ones of the side walls 4 and 5 may be omitted to provide end walls which are formed by alternating open and closed areas. In such an arrangement, each section may have one side wall, with adjacent sections having side walls on opposite sides, or alternate sections may have two side walls while their adjacent sections have none.

In a further alternative embodiment, not illustrated, the sections may be formed with a central longitudinal wall similar in form to the side walls 4 and 5 but extending centrally along each section, or along alternate sections. Such a wall may be provided in addition to, or as an alternative to, one or both of the side walls 4 and 5.

It is also foreseen that the latching arrangement may take forms different from that shown in the Figures. For example, latching means may be formed on, or as a part of, either the side walls 4 or 5 or the central longitudinal wall of the end sections 1a and 1c. As an alternative to latching elements such as 7 and 8, the end sections may be held together by welding or bonding to form a preassembled marker tally.

The markers of the present invention are preferably formed from plastics material, most preferably by injection moulding. The markers may be colour coded by colouring the plastics material, and may have indicia moulded onto those faces of the sections 1 or side walls 4 and 5 which will be exposed in use. Indicia are, however, preferably applied by printing directly on to the material of the marker tally, or adhesive labels may be used either in pre-printed form, or in blank form for hand completion. In a preferred method of manufacture, an injection mould is used to produce a number of markers simultaneously, with the faces of the marker sections arranged parallel to the parting plane of the mould. The markers can then be held in a first one of the mould halves with these faces exposed for a subsequent printing operation. Advantageously, the mould may be provided with two such first mould halves, which are alternately cooperable with a second mould half to form the mould cavity so that each moulding operation can take place simultaneously with the printing of the markers formed in the previous moulding operation.

A further development of the method is to provide a first mould half having a cavity therein to form a marker, the mould being closed by a substantially planar face of a second mould half. In this arrangement, the marker is formed in the mould and when the second mould half is removed, the marker is held in the first mould half with the faces of the marker segments exposed in a coplanar array. The faces of the marker segments may then be printed or have indicia applied to them while the marker remains in the first mould half, after which the marker may be ejected from the first mould half. The essential characteristic of the process is that the marker is formed in a configuration in which the faces of the marker segments are in a planar array, and are exposed when the mould halves are separated and the marker remains in the first mould half.

To speed the production process, such a first mould half may be arranged to move from a moulding station, where it is closed by a respective second mould half, to a printing station and thence to an ejection station. The first mould half may be mounted on a revolving

carousel for indexed rotation between the three stations. A plurality of cavities may be formed in the first mould half, to produce a plurality of markers at each moulding operation.

CLAIMS

1. A garment marker comprising an elongate strip of flexible material divided by transversely extending fold lines into three or more sections hingedly linked in end-to-end relationship, a number of the sections having an upstanding side wall extending along one of their respective side edges in a plane substantially perpendicular to the plane of the strip, and each side wall being substantially triangular in form having its base attached to a respective section and having a truncated apex, the marker being assembled by forming the sections of the marker into polygonal cylindrical array by bringing the transverse edges of the sections at the respective ends of the strip into engagement, the side walls defining at least one transverse surface relative to the axis of the garment marker.

2. A garment marker according to claim 1, wherein the strip is divided into three sections, and wherein the polygonal cylinder formed by the sections is a triangular prism.

3. A garment marker according to claim 1 or claim 2, wherein the side walls extend in the same plane, to form an end surface when the garment marker is in the assembled position.

4. marker is held in its assembled position by means of cooperating latching elements formed on the end sections of the elongate strip.

5. A garment marker according to claim 4, wherein the latching elements are releasable.

6. A garment marker according to any of claims 1 to 3, wherein the marker is secured in its assembled position by bonding or welding.

7. A garment marker according to any preceding claim, wherein each of the sections has a pair of substantially parallel side walls extending from its side edges.

8. A garment marker according to any preceding claim, wherein each of the side walls is truncated at its apex by a concave arcuate edge.

9. A garment marker according to claim 8, wherein the concave arcuate edges are arranged so that they form a circular opening when the side walls lie with their adjacent edges in contact.

10. A method of producing garment marker tallies comprising providing a strip of flexible material divided into three or more sections by transverse hinge lines and having a number of upstanding side walls formed on respective sections of the strip, applying size marking indicia on those faces of the sections of the strip remote from the upstanding side walls, and thereafter bringing the ends of the strip together by folding the strip along its fold lines to form the sections of the strip into a polygonal cylindrical array with the indicia on the outer surfaces, the side walls defining at least one transverse surface relative to the axis of the garment marker.

11. A method according to claim 10 wherein the respective sections of the strip are positioned in one plane while the size marking indicia are applied thereto.

12. A method according to claim 10 or claim 11 wherein an injection mould is used to produce a number of markers simultaneously, with the said faces of the marker sections arranged parallel to the parting plane of the mould.

13. A method according to claim 12 wherein the injection mould comprises a first mould half having a cavity therein to form a marker, and a substantially planar a second mould half, the marker being formed in the mould and being held in the first mould half with the faces of the marker segments exposed in a coplanar array when the second mould half is removed, indicia being applied to the faces while the marker remains in the first mould half, after which the marker is ejected from the first mould half.

14. A garment marker substantially as herein described with reference to Figures 1 to 3 of the accompanying drawings.

15. A method of producing garment marker tallies substantially as herein described.

10

Patents Act 1977
Examiner's report to the Comptroller under Section 17
(The Search report)

Application number
GB 9513973.9

Relevant Technical Fields

(i) UK Cl (Ed.N) B8F (FBC)

(ii) Int Cl (Ed.6) A47G 25/14; G09F 3/00, 3/02, 3/04, 3/06

Search Examiner
STEPHEN SMITH

Date of completion of Search
19 SEPTEMBER 1995

Databases (see below)
(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

(ii) ONLINE: WPI

Documents considered relevant following a search in respect of Claims :-
1 TO 15

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages	Relevant to claim(s)
A	GB 2139181 A (MORPLAN)	

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).

BNSDOCID: <GB_____2291036A_1_>